



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R09-OAR-2021-0078; FRL-10022-86-Region 9]

#### **Finding of Failure to Attain the 2008 Lead and 2010 Sulfur Dioxide Standards; Arizona; Hayden and Miami Nonattainment Areas**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to determine that the Hayden lead (Pb) nonattainment area (NAA) failed to attain the 2008 Pb primary and secondary national ambient air quality standards (NAAQS or “standards”) by the applicable attainment date of October 3, 2019. This proposed determination is based upon monitored air quality data from November 2015-December 2018 for the 2008 Pb NAAQS. The EPA is also proposing to determine that the Hayden and Miami sulfur dioxide (SO<sub>2</sub>) NAAs failed to attain the 2010 1-hour SO<sub>2</sub> primary NAAQS by the applicable attainment date of October 4, 2018, based upon monitored air quality data from January 2015-December 2017. If the EPA finalizes these determinations as proposed, the State of Arizona will be required to submit revisions to the Arizona State Implementation Plan (SIP) that, among other elements, provide for expeditious attainment of the 2008 Pb and 2010 SO<sub>2</sub> standards.

**DATES:** Any comments must arrive by [INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R09-OAR-2021-0078 at <http://www.regulations.gov>. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions

(audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>. If you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

**FOR FURTHER INFORMATION CONTACT:** Ben Leers, Air Planning Office (AIR-2), EPA Region IX, (415) 947-4279, [Leers.Benjamin@epa.gov](mailto:Leers.Benjamin@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document, “we,” “us,” and “our” refer to the EPA.

## **Table of Contents**

### **I. Background**

- A. The 2008 Pb and 2010 SO<sub>2</sub> National Ambient Air Quality Standards*
- B. Designations, Classifications, and Attainment Dates for the 2008 Pb and 2010 SO<sub>2</sub> National Ambient Air Quality Standards*

### **II. Proposed Determinations and Consequences**

- A. Applicable Statutory and Regulatory Provisions*
- B. Monitoring Network Considerations*
- C. Data Considerations and Proposed Determination*
- D. Consequences for Pb and SO<sub>2</sub> Nonattainment Areas Failing to Attain Standards by Attainment Dates*

### **III. Proposed Action and Request for Public Comment**

### **IV. Statutory and Executive Order Reviews**

### **I. Background**

- A. The 2008 Pb and 2010 SO<sub>2</sub> National Ambient Air Quality Standards*

Under section 109 of the Clean Air Act (CAA or “Act”), the EPA has established primary and secondary NAAQS for certain pervasive air pollutants (referred to as “criteria

pollutants”) and conducts periodic reviews of the NAAQS to determine whether they should be revised or whether new NAAQS should be established. The primary NAAQS represent ambient air quality standards the attainment and maintenance of which the EPA has determined, including a margin of safety, are requisite to protect the public health. The secondary NAAQS represent ambient air quality standards the attainment and maintenance of which the EPA has determined are requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air.

### 1. The 2008 Pb Standard

Under the CAA, the EPA must establish NAAQS for criteria pollutants, including Pb. Pb is generally emitted in the form of particles that are deposited in water, soil, and dust. People may be exposed to Pb by inhaling it or by ingesting Pb-contaminated food, water, soil, or dust. Once in the body, Pb is quickly absorbed into the bloodstream and can result in a broad range of adverse health effects including damage to the central nervous system, cardiovascular function, kidneys, immune system, and red blood cells. Children are particularly vulnerable to Pb exposure, in part because they are more likely to ingest Pb and in part because their still-developing bodies are more sensitive to the effects of Pb. The harmful effects to children's developing nervous systems (including their brains) arising from Pb exposure may include intelligence quotient (IQ) <sup>1</sup> loss, poor academic achievement, long-term learning disabilities, and an increased risk of delinquent behavior.

The EPA first established primary and secondary Pb standards in 1978 at 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) as a quarterly average.<sup>2</sup> Based on new health and scientific data, on October 15, 2008, the EPA revised the federal Pb standards to  $0.15 \mu\text{g}/\text{m}^3$  and revised the averaging time for the standards.<sup>3</sup> Since the primary and secondary Pb standards are the

---

<sup>1</sup> IQ is a score created by dividing a person's mental age score, obtained by administering an intelligence test, by the person's chronological age, both expressed in terms of years and months. “Glossary of Important Assessment and Measurement Terms,” Philadelphia, PA: National Council on Measurement in Education. 2016.

<sup>2</sup> 43 FR 46246 (October 5, 1978).

<sup>3</sup> 73 FR 66964 (November 12, 2008).

same, we refer to them hereafter in this document using the singular Pb standard or NAAQS. A violation of the 2008 Pb NAAQS occurs if any arithmetic 3-month mean concentration is greater than 0.15 µg/m<sup>3</sup>.<sup>4</sup>

## 2. The 2010 SO<sub>2</sub> Standard

Under the CAA, the EPA must also establish a NAAQS for SO<sub>2</sub>. SO<sub>2</sub> is primarily released to the atmosphere through the burning of fossil fuels by power plants and other industrial facilities. SO<sub>2</sub> is also emitted from industrial processes including metal extraction from ore and heavy equipment that burn fuel with a high sulfur content. Short-term exposure to SO<sub>2</sub> can damage the human respiratory system and increase breathing difficulties. Small children and people with respiratory conditions, such as asthma, are more sensitive to the effects of SO<sub>2</sub>. Sulfur oxides at high concentrations can also react with compounds to form small particulates that can penetrate deeply into the lungs and cause health problems.

The EPA first established primary SO<sub>2</sub> standards in 1971 at 0.14 parts per million (ppm) over a 24-hour averaging period and 0.3 ppm over an annual averaging period.<sup>5</sup> In June 2010, the EPA revised the NAAQS for SO<sub>2</sub> to provide increased protection of public health, providing for revocation of the 1971 primary annual and 24-hour SO<sub>2</sub> standards for most areas of the country following area designations under the new NAAQS.<sup>6</sup> The 2010 NAAQS is 75 parts per billion (ppb) (equivalent to 0.075 ppm) over a 1-hour averaging period.<sup>7</sup> A violation of the 2010 1-hour SO<sub>2</sub> NAAQS occurs when the annual 99<sup>th</sup> percentile of ambient daily maximum 1-hour average SO<sub>2</sub> concentrations, averaged over a 3-year period, exceeds 75 ppb.<sup>8</sup>

### *B. Designations, Classifications, and Attainment Dates for the 2008 Pb and 2010 SO<sub>2</sub> National Ambient Air Quality Standards*

---

<sup>4</sup> 40 CFR 50.16.

<sup>5</sup> 36 FR 8186 (April 30, 1971).

<sup>6</sup> 40 CFR 50.4(e).

<sup>7</sup> 75 FR 35520 (June 22, 2010).

<sup>8</sup> 40 CFR 50.17.

Following promulgation of any new or revised NAAQS, the EPA is required by CAA section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS.

#### 1. Hayden 2008 Pb Nonattainment Area

The initial designations for the 2008 Pb NAAQS were established in two rounds and were completed on November 22, 2010, and November 22, 2011.<sup>9</sup> The EPA initially designated the Hayden, Arizona area as unclassifiable due to insufficient monitoring data.<sup>10</sup> In June 2013, the EPA determined that quality assured, certified monitoring data collected in 2012 at the Arizona Department of Environmental Quality (ADEQ or “State”) Globe Highway monitor showed that the area was violating the Pb NAAQS. Accordingly, on May 2, 2014, the EPA proposed to redesignate the Hayden area to nonattainment for the 2008 Pb NAAQS, and on September 3, 2014, finalized the nonattainment designation, effective October 3, 2014.<sup>11</sup> Under CAA sections 172(a)(2) and 192(a), the attainment date for a Pb nonattainment area is the date by which attainment can be achieved as expeditiously as practicable, but no later than five years after the area is designated nonattainment. Therefore, the maximum attainment date for the Hayden Pb NAA is October 3, 2019.<sup>12</sup> The Hayden nonattainment area for the 2008 Pb NAAQS includes parts of Gila and Pinal counties.<sup>13</sup>

#### 2. Hayden and Miami 2010 SO<sub>2</sub> Nonattainment Areas

On August 5, 2013, the EPA finalized its first round of designations for the 2010 primary SO<sub>2</sub> NAAQS.<sup>14</sup> In the 2013 action, the EPA designated 29 areas in 16 states as nonattainment for the 2010 SO<sub>2</sub> NAAQS, including the Hayden and Miami areas in Arizona. The Hayden SO<sub>2</sub> NAA includes parts of Gila and Pinal counties and excludes the parts of Indian

---

<sup>9</sup> See 75 FR 71033 (November 22, 2010); 76 FR 72097 (November 22, 2011).

<sup>10</sup> Arizona Department of Environmental Quality's Globe Highway monitor registered four violations of the Pb NAAQS in 2011; however, at the time of designation the data had not been quality assured and certified. Consequently, the EPA could not rely on those violations as a basis for a nonattainment designation.

<sup>11</sup> 79 FR 52205 (September 3, 2014).

<sup>12</sup> ADEQ's "SIP Revision: Hayden Lead Nonattainment Area" (adopted on March 3, 2017), 18, describes "October 2019" as the attainment date for the area. Accordingly, in approving this SIP revision, 83 FR 56734 (November 14, 2018), the EPA established October 3, 2019 as the applicable attainment date for this area.

<sup>13</sup> For an exact description of the Hayden Pb NAA, refer to 40 CFR 81.303.

<sup>14</sup> 78 FR 47191 (August 5, 2013).

country located in the area. The Miami SO<sub>2</sub> NAA includes parts of Gila County and excludes parts of Indian country within the area.<sup>15</sup> The EPA's initial round of designations for the 2010 SO<sub>2</sub> NAAQS including the Hayden and Miami SO<sub>2</sub> NAAs became effective on October 4, 2013. Pursuant to CAA sections 172(a)(2) and 192(a), the maximum attainment date for the Hayden and Miami SO<sub>2</sub> NAAs is October 4, 2018, five years after the effective date of the final action designating each area as nonattainment for the 2010 SO<sub>2</sub> NAAQS.

## **II. Proposed Determination and Consequences**

### *A. Applicable Statutory and Regulatory Provisions*

Section 179(c)(1) of the CAA requires the EPA to determine whether a nonattainment area attained an applicable standard by the applicable attainment date based on the area's air quality as of the attainment date.

A determination of whether an area's air quality meets applicable standards is generally based upon the most recent three years of complete, quality-assured data gathered at established state and local air monitoring stations (SLAMS) in a nonattainment area and entered into the EPA's Air Quality System (AQS) database.<sup>16</sup> Data from ambient air monitors operated by state and local agencies in compliance with the EPA monitoring requirements must be submitted to AQS.<sup>17</sup> Monitoring agencies annually certify that these data are accurate to the best of their knowledge.<sup>18</sup> All data are reviewed to determine the area's air quality status in accordance with 40 CFR part 50, Appendix R (for Pb) and Appendix T (for SO<sub>2</sub>).

We note that when determining the attainment status of SO<sub>2</sub> nonattainment areas, in addition to ambient monitoring data, the EPA may also consider air quality dispersion modeling and/or a demonstration that the control strategy in the SIP has been fully implemented.<sup>19</sup> With regard to the use of monitoring data for such determinations, the EPA's 2014 SO<sub>2</sub> Guidance

---

<sup>15</sup> For exact descriptions of the Hayden and Miami SO<sub>2</sub> NAAs, refer to 40 CFR 81.303.

<sup>16</sup> AQS is the EPA's repository of ambient air quality data.

<sup>17</sup> 40 CFR 58.16.

<sup>18</sup> 40 CFR 58.15.

<sup>19</sup> EPA, Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions (April 2014) ("2014 SO<sub>2</sub> Guidance"), 49.

specifically notes that “[i]f the EPA determines that the air quality monitors located in the affected area are located in the area of maximum concentration, the EPA may be able to use the data from these monitors to make the determination of attainment without the use of air quality modeling data.”<sup>20</sup> This language might be read to suggest that the EPA must always assess whether the air quality monitors in the affected area are located in the area of maximum concentration prior to using monitoring data to determine an SO<sub>2</sub> NAA’s attainment status. However, this language was intended to refer to a situation where the EPA is considering making a determination that the area has attained the NAAQS based on a finding that all of the monitoring sites within the affected area had an attaining design value for the relevant period. As described in section II.C of this notice, in this instance, the monitoring sites in the Hayden and Miami SO<sub>2</sub> NAAs did not have attaining design values for the relevant period. Consequently, even if the monitoring sites are not located in the area of maximum concentration, any monitors that would be located in the area of maximum concentration could not record concentrations lower than those recorded at the existing monitors at the Hayden and Miami sites. Accordingly, since the Hayden and Miami monitors are violating the NAAQS, it is not necessary to consider whether the monitors are located in the area of maximum concentration in order to determine that the Hayden and Miami SO<sub>2</sub> NAAs did not attain the 2010 SO<sub>2</sub> NAAQS by the October 4, 2018 attainment date. However, in any future assessment of whether these areas have attained the NAAQS, the EPA may assess whether the monitors are located in the area of maximum concentration and may also consider modeling and/or control implementation information, as appropriate.

#### 1. Interpretation of the 2008 Pb Standard

Under EPA regulations in 40 CFR 50.16 and in accordance with 40 CFR part 50 Appendix R, the 2008 Pb standard is met when the design value is less than or equal to 0.15 µg/m<sup>3</sup> at each eligible monitoring site within the area. The Pb design value at each eligible

---

<sup>20</sup> Id., 50.

monitoring site is the maximum valid 3-month arithmetic mean Pb concentration calculated over three years. The 3-month mean Pb concentrations are rounded to the nearest hundredth  $\mu\text{g}/\text{m}^3$  for comparison to the NAAQS. Data completeness requirements for a given 3-month period are met if the average of the data capture rate of the three constituent monthly means is greater than or equal to 75 percent.<sup>21</sup>

## 2. Interpretation of the 2010 SO<sub>2</sub> Standard

Under EPA regulations in 40 CFR 50.17 and in accordance with 40 CFR part 50 Appendix T, the 2010 1-hour annual SO<sub>2</sub> standard is met when the design value is less than or equal to 75 ppb. Design values are calculated by computing the three-year average of the annual 99<sup>th</sup> percentile daily maximum 1-hour average concentrations.<sup>22</sup> When calculating 1-hour primary standard design values, the calculated design values are rounded to the nearest whole number or 1 ppb by convention. An SO<sub>2</sub> 1-hour primary standard design value is valid if it encompasses three consecutive calendar years of complete data. A year is considered complete when all four quarters are complete, and a quarter is complete when at least 75 percent of the sampling days are complete. A sampling day is considered complete if 75 percent of the hourly concentration values are reported; this includes data affected by exceptional events that have been approved for exclusion by the Administrator.<sup>23</sup>

### *B. Monitoring Network Considerations*

Section 110(a)(2)(B)(i) of the CAA requires states to establish and operate air monitoring networks to compile data on ambient air quality for all criteria pollutants. The EPA's monitoring requirements are specified by regulation in 40 CFR part 58. These requirements are applicable to state, and where delegated, local air monitoring agencies that operate criteria pollutant monitors. The regulations in 40 CFR part 58 establish specific requirements for

---

<sup>21</sup> See 40 CFR part 50, Appendix R sections 1(c), 4(c), and 5(b).

<sup>22</sup> As defined in 40 CFR part 50, Appendix T section 1(c), daily maximum 1-hour values refer to the maximum 1-hour SO<sub>2</sub> concentration values measured from midnight to midnight that are used in the NAAQS computations.

<sup>23</sup> See 40 CFR part 50, Appendix T sections 1(c), 3(b), 4(c), and 5(a).



operating air quality surveillance networks to measure ambient concentrations of Pb, including requirements for measurement methods, network design, quality assurance procedures, and in the case of large urban areas, the minimum number of monitoring sites designated as SLAMS.

In sections 4.4 and 4.5 of Appendix D to 40 CFR part 58, the EPA specifies minimum monitoring requirements for Pb and SO<sub>2</sub>, respectively, to operate at SLAMS. SLAMS produce data that are eligible for comparison with the NAAQS, and therefore, the monitor must be an approved federal reference method (FRM), federal equivalent method (FEM), or approved regional method (ARM) monitor.

The minimum number of required Pb SLAMS is described in section 4.5 of Appendix D to 40 CFR part 58. There must be at least one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source that emits 0.50 or more tons per year (tpy) and from each airport that emits 1.0 tpy or more based on either the most recent National Emission Inventory (NEI) or other scientifically justifiable methods and data. According to the 2017 NEI, two non-airport sources in Gila County, Arizona exceeded the 0.50 tpy threshold and therefore required source-oriented Pb monitoring: the Asarco LLC Hayden Smelter and the Freeport-McMoRan Miami Smelter.<sup>24</sup>

The minimum number of required SO<sub>2</sub> SLAMS is described in sections 4.4.2 and 4.4.3 of Appendix D to 40 CFR part 58. According to section 4.4.2, the minimum number of required SO<sub>2</sub> monitoring sites is determined by the population weighted emissions index for each state's core based statistical area. Section 4.4.3 describes additional monitors that may be required by an EPA regional administrator.

Under 40 CFR 58.10, states are required to submit annual network plans (ANP) for ambient air monitoring networks for approval by the EPA. Within the Hayden Pb, Hayden SO<sub>2</sub>, and Miami SO<sub>2</sub> NAAs, ADEQ is responsible for assuring that each area meets air quality

---

<sup>24</sup> Arizona facility-level Pb emissions data from the 2017 NEI may be accessed on the EPA NEI website at <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data> and are included in our docket via an Excel spreadsheet.

monitoring requirements. ADEQ submits annual monitoring network plans to the EPA that describe the various monitoring sites operated by ADEQ.<sup>25</sup> Each ANP discusses the status of the air monitoring network as required under 40 CFR 58.10 and addresses the operation and maintenance of the air monitoring network in the previous year. The EPA regularly reviews these ANPs for compliance with the applicable reporting requirements in 40 CFR part 58.<sup>26</sup>

The EPA also conducts regular “technical systems audits” (TSAs) during which we review and inspect ambient air monitoring programs to assess compliance with applicable regulations concerning the collection, analysis, validation, and reporting of ambient air quality data.<sup>27</sup> In our 2018 TSA of ADEQ, we concluded that ADEQ’s ambient air monitoring network meets or exceeds the requirements for the minimum number of SLAMS for all criteria pollutants, including for Pb in the Hayden NAA and for SO<sub>2</sub> in the Hayden and Miami NAAs.<sup>28</sup>

#### 1. Hayden Pb Monitoring Network

ADEQ operated two Pb SLAMS during the November 2015-December 2018 data period within the Hayden Pb NAA: Globe Highway (AQS ID 04-007-1002) and Hillcrest (AQS ID 04-025-8104). The Globe Highway site is located along State Route 77 in Winkelman. The Hillcrest site, which began monitoring on January 1, 2016, is located at 123 S. Hillcrest Avenue in Hayden.<sup>29</sup> The primary and secondary monitors at each Pb monitoring site are FEM monitors.

Based on our review of ADEQ’s ANPs for the years 2016-2019<sup>30</sup> and the 2018 TSA of ADEQ’s monitoring program, we propose to find that the monitoring network in the Hayden Pb NAA is adequate for the purpose of collecting ambient Pb concentration data for use in

---

<sup>25</sup> See, e.g., “State of Arizona Air Monitoring Network Plan for the Year 2019.” Copies of Arizona’s ANPs for 2016-2019 are included in the docket.

<sup>26</sup> See, e.g., letter dated November 8, 2019, from Gwen Yoshimura, Manager, EPA Region IX, Air Quality Analysis Office, to Daniel Czecholinski, Acting Director, Air Quality Division, ADEQ. Copies of EPA letters responding to Arizona’s ANPs for 2016-2019 are included in the docket.

<sup>27</sup> See 40 CFR part 58, appendix A, section 2.5.

<sup>28</sup> See letter dated April 25, 2019, from Elizabeth Adams, Director, Air Division, EPA Region IX, to Timothy Franquist, Director, Air Quality Division, ADEQ.

<sup>29</sup> Refer to Appendices C and D of the “State of Arizona Air Monitoring Network Plan For the Year 2019” (July 2019) for detailed descriptions and locations of each Pb monitor.

<sup>30</sup> ADEQ’s ANPs for 2016-2019 address the operation and maintenance of their air monitoring network for 2015-2018.

determining whether the Hayden Pb NAA attained the 2008 Pb NAAQS by the October 3, 2019 attainment date.

## 2. Hayden SO<sub>2</sub> and Miami SO<sub>2</sub> Monitoring Networks

During the 2015-2017 data period, ADEQ operated one SO<sub>2</sub> SLAMS in the Hayden SO<sub>2</sub> NAA: Hayden Old Jail (AQS ID 04-007-1001); and three SO<sub>2</sub> SLAMS in the Miami SO<sub>2</sub> NAA: Miami Ridgeline (AQS ID 04-007-0009); Miami Jones Ranch (AQS ID 04-007-0011); and Miami Townsite (AQS ID 04-007-0012). The Hayden Old Jail site is located on Canyon Drive and Kennecott Avenue in Hayden. The three SO<sub>2</sub> SLAMS in the Miami SO<sub>2</sub> NAA are located in Miami. The Miami Ridgeline site is located on 4030 Linden Street;<sup>31</sup> the Miami Jones Ranch site is located on Cherry Flats Road; and the Miami Townsite site is located on Sullivan Street and Davis Canyon Road. The primary monitors at each of these sites are FEM monitors.<sup>21</sup>

Based on our review of ADEQ's ANPs for the years 2016-2018<sup>32</sup> and the 2018 TSA of ADEQ's monitoring program, we propose to find that the monitoring networks in the Hayden SO<sub>2</sub> and Miami SO<sub>2</sub> NAAs are adequate for the purpose of collecting ambient SO<sub>2</sub> concentration data for use in determining whether each nonattainment area attained the 2010 SO<sub>2</sub> NAAQS by the October 4, 2018 attainment date.

### *C. Data Considerations and Proposed Determination*

Under 40 CFR 58.15, monitoring agencies must certify, on an annual basis, data collected at all SLAMS and at all FRM, FEM, and ARM special purpose monitor stations that meet EPA quality assurance requirements. In doing so, monitoring agencies must certify that the previous year of ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate to the best of their knowledge. ADEQ

---

<sup>31</sup> The Miami Ridgeline site was closed on September 6, 2017, with EPA approval. Letter dated September 19, 2017, from Elizabeth Adams, Acting Director, Air Division, EPA Region IX, to Timothy S. Franquist, Director, Air Quality Division, ADEQ.

<sup>32</sup> ADEQ's ANPs for 2016-2018 address the operation and maintenance of their air monitoring network for 2015-2017.

annually certifies that the data it submits to AQS are quality assured, including data collected by ADEQ at monitoring sites in the Hayden Pb NAA, Hayden SO<sub>2</sub> NAA, and Miami SO<sub>2</sub> NAA.<sup>33</sup>

## 1. Pb Data Considerations

As noted in Section II.A of this notice, CAA section 179(c)(1) requires the EPA to determine whether a nonattainment area attained an applicable standard by the applicable attainment date, based on the area's air quality “as of the attainment date.” For the Hayden Pb NAA, for reasons discussed in Section I.B.1 of this notice, the applicable attainment date is October 3, 2019, with respect to the 2008 Pb NAAQS. In accordance with Appendix R to 40 CFR part 50, compliance with the Pb NAAQS is determined based on data from 36 consecutive valid 3-month periods (i.e., 38 months, or a 3-year calendar period and the preceding November and December). Considering the applicable attainment date of October 3, 2019, for the 2008 Pb NAAQS, we must review the data collected in the Hayden Pb NAA from November 1, 2015-December 31, 2018. The Pb data collected in the Hayden Pb NAA from November 1, 2015-December 31, 2018 have been certified by ADEQ.<sup>34</sup>

We have also evaluated the completeness of these data in accordance with the requirements of 40 CFR part 50 Appendix R. As detailed in 40 CFR part 50 Appendix R section 4(c)(i), a 3-month mean Pb value is determined to be valid (i.e., meets data completeness requirements) if the average of the data capture rate of the three constituent monthly means is greater than or equal to 75 percent. The data collected by ADEQ at the Globe Highway monitoring site meet this completeness criterion for each 3-month period from November 2015-December 2018. The Hillcrest monitoring site began collecting data on January 1, 2016. Three full months of data are therefore not available for the 3-month periods from November 2015-January 2016 and December 2015-February 2016. The data collected by ADEQ at the Hillcrest

---

<sup>33</sup> See, e.g., letter from Timothy S. Franquist, Director, Air Quality Division ADEQ, to Gwen Yoshimura, Manager, Air Quality Analysis Office, EPA Region IX, certifying calendar year 2018 ambient air quality data and quality assurance data, dated May 1, 2019. Copies of annual certification letters from 2016-2019 are included in the docket.

<sup>34</sup> Id.

monitoring site meet the Pb completeness criterion for each of the 34 available 3-month periods from January 2016-December 2018.<sup>35</sup>

## 2. Pb Data

The Pb design values at both SLAMS within the Hayden Pb NAA for the relevant 36 consecutive 3-month periods beginning November 2015 through December 2018 are presented in Table 1 of this notice. Table 1 demonstrates that the Pb design values for the November 2015-December 2018 data period are greater than 0.15 µg/m<sup>3</sup> at the Globe Highway and Hillcrest monitoring sites.

<b>Table 1 – 2016-2018 Pb Design Values for the Hayden Pb Nonattainment Area</b>				
<b>Site (AQS ID)</b>	<b>Highest 3-Month Rolling Average</b>			<b>Pb Design Value (µg/m<sup>3</sup>)</b>
	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Globe Highway (04-007-1002)	0.14	0.21	0.15	0.21
Hillcrest (04-007-1003)	0.31 <sup>a</sup>	0.28	0.23	0.31
<b>Notes:</b>  <sup>a</sup> Three full months of data are not available for the first two 3-month periods (i.e., November 2015-January 2016 and December 2015-February 2016) at the Hillcrest Monitoring site. However, based on the “above NAAQS level” test described in 40 CFR part 58, Appendix R, Section 4(c)(ii)(A), the February 2016 3-month rolling average of 0.31 ug/m <sup>3</sup> is considered valid.  <b>Source:</b> EPA, Design Value Report, November 3, 2020.				

The 2018 annual design value site (i.e., the site with the highest design value based on November 2015-December 2018 data) is the Hillcrest site with a Pb design value of 0.31 µg/m<sup>3</sup>. Because the Hillcrest monitoring site began operation on January 1, 2016, three full months of monitoring data are not available for the 3-month periods from November 2015-January 2016 and December 2015-February 2016. The EPA applied the “above NAAQS level” test described

---

<sup>35</sup> See footnote a to Table 1 of this document for a discussion of how we considered the data in these periods after initiation of the Hillcrest monitoring site.

in 40 CFR 50 Appendix R, Section 4(c)(ii)(A) to determine if the 3-month rolling average ending February 2016 could be considered valid. The 3-month period passed the diagnostic test described therein. Therefore, the February 2016 3-month rolling average of  $0.31 \mu\text{g}/\text{m}^3$  is considered valid.

For the area to attain the 2008 Pb NAAQS by October 3, 2019, the Pb design value reflecting data from November 2015-December 2018 at each eligible monitoring site must be equal to or less than  $0.15 \mu\text{g}/\text{m}^3$ . As shown in Table 1, the 2018 design values at both sites in the Hayden Pb NAA are greater than  $0.15 \mu\text{g}/\text{m}^3$ . Therefore, based on quality-assured and certified data for November 2015-December 2018, we are proposing to determine that the Hayden Pb NAA failed to attain the 2008 Pb standard by the October 3, 2019 attainment date.

### 3. SO<sub>2</sub> Data Considerations

For the Miami and Hayden SO<sub>2</sub> NAAs, for reasons discussed in section I.B.2 of this notice, the applicable attainment date is October 4, 2018. In accordance with Appendix T to 40 CFR part 50, determinations of SO<sub>2</sub> NAAQS compliance are based on three consecutive calendar years of data. To determine the air quality as of the attainment date in each nonattainment area, we must review the data collected during the three calendar years immediately preceding the attainment date for the Hayden and Miami SO<sub>2</sub> NAAs, or January 1, 2015-December 31, 2017.

The SO<sub>2</sub> data for the Hayden and Miami SO<sub>2</sub> NAAs from January 1, 2015-December 31, 2017, have been certified by ADEQ. We have also evaluated the completeness of these data in accordance with the requirements of 40 CFR part 50, Appendix T. The data collected by ADEQ meet the quarterly completeness criterion for all 12 quarters in the three calendar years preceding the attainment date at the Hayden Old Jail and Miami Jones Ranch SO<sub>2</sub> monitoring sites. The data collected by ADEQ in the three calendar years preceding the attainment date meet the quarterly completeness criteria for only 11 out of 12 quarters at the Miami Townsite SO<sub>2</sub> monitor and 10 out of 12 quarters at the Miami Ridgeline SO<sub>2</sub> monitor. The Miami Townsite SO<sub>2</sub> monitor collected only three quarters of complete data in 2016 because a portion of the data

collected in the 1<sup>st</sup> quarter of 2016 (January 2016-March 2016) was invalidated for not meeting quality assurance requirements. In 2017, the Miami Ridgeline monitor did not meet completeness criteria for the 2<sup>nd</sup> quarter (April 2017-June 2017) because a portion of data was not collected due to a collection error and machine malfunction, nor for the 4<sup>th</sup> quarter (October 2017-December 2017) because the site shut down on September 26, 2017.<sup>36</sup>

#### 4. SO<sub>2</sub> Data

The 1-hour SO<sub>2</sub> design values at each monitoring site within the Hayden and Miami SO<sub>2</sub> NAAs for the 2015-2017 period are presented in Table 2. Table 2 demonstrates that the 1-hour SO<sub>2</sub> design values for the 2015-2017 period are greater than 75 ppb at each eligible monitoring site.

<b>Table 2 – 2015-2017 1-Hour Design Values for the Hayden and Miami SO<sub>2</sub> Nonattainment Areas</b>					
<b>Site (AQS ID)</b>	<b>Annual 99<sup>th</sup> Percentile Daily Maximum 1-hour Average</b>			<b>1-hour Design Value (ppb)</b>	<b>Design Value Valid?</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>		
Hayden Old Jail (04-007-1001)	246	359	280	295	Yes
Miami Ridgeline (04-007-0009)	171	120	99 <sup>a</sup>	130	No
Miami Townsite (04-007-0012)	231	110 <sup>b</sup>	135	159	Yes
Miami Jones Ranch (04-007-0011)	242	150	270	221	Yes
<b>Notes:</b> <sup>a</sup> The Miami Ridgeline monitor failed to meet completeness criteria for the 2 <sup>nd</sup> quarter of 2017 (April 2017-June 2017) and for the 4 <sup>th</sup> quarter of 2017 (October 2017-December 2017). <sup>b</sup> The Miami Townsite monitor had only three quarters of complete data in 2016 because a portion of the data collected in the 1 <sup>st</sup> quarter of 2016 was invalidated for not meeting quality assurance requirements. <b>Source:</b> EPA, Design Value Report, November 30, 2020.					

<sup>36</sup> See the March 22, 2021 AQS Raw Data Report for SO<sub>2</sub> monitors in the Hayden and Miami SO<sub>2</sub> NAAs showing hourly data from the Miami Townsite and Miami Ridgeline monitors throughout 2016 and 2017.

The data in Table 2 demonstrate that one site in the Hayden SO<sub>2</sub> NAA and two sites in the Miami SO<sub>2</sub> NAA failed to attain the 2010 1-hour SO<sub>2</sub> NAAQS by the applicable attainment date of October 4, 2018, while a third site in the Miami NAA, the Ridgeline monitor, did not have a valid design value for this period. Though the annual 99<sup>th</sup> percentile daily maximum 1-hour average at the Miami Townsite monitor did not meet applicable completeness criteria for all three years in the 2015-2017 data period, the 3-year design value for Miami Townsite was deemed valid due to meeting the criteria in 40 CFR Part 50 Appendix T, section 3(c)(i), which requires that “at least 75 percent of the days in each quarter of each of three consecutive years have at least one reported hourly value, and the design value calculated according to the procedures specified in section 5 is above the level of the primary 1-hour standard.” The 3-year design value for Miami Ridgeline is not considered valid because the site did not meet the conditions in 40 CFR Part 50 Appendix T, section 3(c)(i), (ii), or (iii) to allow for incomplete design values to be considered valid.

The annual design value site in each NAA is the site with the highest design value based on 2015-2017 data. In the Hayden SO<sub>2</sub> NAA, the annual design value site is the Hayden Old Jail site with a 1-hour SO<sub>2</sub> design value of 295 ppb. In the Miami SO<sub>2</sub> NAA, the annual design value site is the Miami Jones Ranch site with a 1-hour SO<sub>2</sub> design value of 221 ppb.

For an area to attain the 2010 SO<sub>2</sub> NAAQS by the October 4, 2018 attainment date, the design value based upon monitored air quality data from 2015-2017 at each eligible monitoring site must be equal to or less than 75 ppb for the 1-hour standard. Table 2 shows that the design values at each monitoring site in the Hayden and Miami SO<sub>2</sub> NAAs exceed 75 ppb. Therefore, based on quality-assured and certified data for the 2015-2017 data period, we are proposing to determine that both the Hayden SO<sub>2</sub> NAA and Miami SO<sub>2</sub> NAA failed to attain the 2010 1-hour SO<sub>2</sub> standard by the October 4, 2018 attainment date.

*D. Consequences for Pb and SO<sub>2</sub> Nonattainment Areas Failing to Attain Standards by Attainment Dates*



The consequences for Pb and SO<sub>2</sub> nonattainment areas for failing to attain the standards by the applicable attainment date are set forth in CAA section 179(d). Under section 179(d), a state must submit a SIP revision for the area meeting the requirements of CAA sections 110 and 172, the latter of which requires, among other elements, a demonstration of attainment and reasonable further progress and contingency measures. In addition, under CAA section 179(d)(2), the SIP revision must include such additional measures as the EPA may reasonably prescribe, including all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any non-air quality and other air quality-related health and environmental impacts. In this case, the dominant source of Pb and SO<sub>2</sub> emissions in the Hayden Pb and SO<sub>2</sub> NAAs is the Asarco Hayden Smelter, and the dominant source of SO<sub>2</sub> emissions in the Miami SO<sub>2</sub> NAA is the Freeport-McMoRan Miami Smelter. Due to the unique nature of these two facilities, which are the only two batch-process primary copper smelters in the country, we do not have adequate information to propose specific additional controls at this time. However, we are seeking comment on what additional measures could be feasibly implemented at these facilities in light of technological achievability, costs, and any non-air quality and other air quality-related health and environmental impacts. We also expect that information concerning such potential additional control measures would be collected by ADEQ as part of its development of SIP revisions to address the requirements that would be triggered by a final finding of failure to attain for these areas.

The state is required to submit the SIP revision within one year after the EPA publishes a final action in the *Federal Register* determining that the nonattainment area failed to attain the applicable Pb or SO<sub>2</sub> standard. We note that on November 10, 2020, the EPA published an action partially disapproving the 2010 SO<sub>2</sub> attainment plan for the Hayden nonattainment area.<sup>37</sup> Although a final finding of failure to attain will not eliminate the state's obligation to address the disapproved elements of its prior plan submittal, the EPA anticipates that Arizona's submission

---

<sup>37</sup> 85 FR 71547.

of a new, approvable attainment plan in response to this finding would also satisfy these obligations.

In addition to triggering requirements for a new SIP submittal, a final determination that a nonattainment area failed to attain the NAAQS by the attainment date would trigger the implementation of contingency measures adopted under 172(c)(9).

Under CAA sections 179(d)(3) and 172(a)(2), the new attainment date for each nonattainment area is the date by which attainment can be achieved as expeditiously as practicable, but no later than five years after the EPA publishes a final action in the *Federal Register* determining that the nonattainment area failed to attain the applicable Pb or SO<sub>2</sub> standard.<sup>38</sup>

### **III. Proposed Action and Request for Public Comment**

Under CAA section 179(c)(1), the EPA proposes to determine that the Hayden Pb NAA failed to attain the 2008 Pb standard by the applicable attainment date of October 3, 2019. Under CAA section 179(c)(1), the EPA also proposes to determine that the Hayden SO<sub>2</sub> NAA and the Miami SO<sub>2</sub> NAA failed to attain the 2010 1-hour SO<sub>2</sub> standard by the applicable attainment date of October 4, 2018. If finalized as proposed, the State of Arizona would be required under CAA section 179(d) to submit revisions to the SIP for the Hayden Pb NAA, Hayden SO<sub>2</sub> NAA, and Miami SO<sub>2</sub> NAA. The required SIP revision for each area must, among other elements, demonstrate expeditious attainment of the standards within the time period prescribed by CAA section 179(d). If finalized as proposed, the SIP revisions required under CAA section 179(d) would be due for submittal to the EPA no later than one year after the publication date of the final action.

---

<sup>38</sup> Pursuant to CAA sections 172(a)(2)(D) and 192(a), the attainment date extension provision under section 172(a)(2)(A) does not apply to the Pb or SO<sub>2</sub> NAAQS.

The EPA is soliciting public comments on the issues discussed in this notice. We will accept comments from the public on this proposal for the next 30 days. We will consider these comments before taking final action.

#### **IV. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

##### *A. Executive Order 12866: Regulatory Planning and Review, and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and therefore was not submitted to the Office of Management and Budget (OMB) for review.

##### *B. Paperwork Reduction Act (PRA)*

This action does not impose an information collection burden under the provisions of the PRA because it does not contain any information collection activities.

##### *C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This proposed action, if finalized, would require the state to adopt and submit SIP revisions to satisfy CAA requirements and would not itself directly regulate any small entities.

##### *D. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate of \$100 million or more, as described in UMRA (2 U.S.C. 1531- 1538) and does not significantly or uniquely affect small governments. This action itself imposes no enforceable duty on any state, local, or tribal governments, or the private sector. This action proposes to determine that the Hayden Pb NAA and the Hayden and Miami SO<sub>2</sub> NAAs failed to attain the NAAQS by the applicable attainment dates. If finalized, this determination would trigger existing statutory timeframes for the State to

submit SIP revisions. Such a determination in and of itself does not impose any federal intergovernmental mandate.

*E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

*F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175. The proposed finding of failure to attain the Pb and SO<sub>2</sub> NAAQS does not apply to tribal areas, and the proposed rule would not impose a burden on Indian reservation lands or other areas where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction within the Hayden Pb, Hayden SO<sub>2</sub> and Miami SO<sub>2</sub> nonattainment areas. Thus, this proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175. Nonetheless, the EPA has notified the San Carlos Apache Tribe of the San Carlos Reservation, which borders the eastern boundary of the Hayden Pb and Hayden SO<sub>2</sub> NAAs, of the proposed action.

*G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This proposed action is not subject to Executive Order 13045 because the effect of this proposed action, if finalized, would be to trigger additional planning requirements under the CAA. This proposed action does not establish an environmental standard intended to mitigate health or safety risks.

*H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use*

This proposed rule is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

*J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

The effect of this proposed action, if finalized, would be to trigger additional planning requirements under the CAA.

**List of Subjects**

*40 CFR Part 52*

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Lead, Pollution, Sulfur dioxide.

Dated: April 23, 2021.

Deborah Jordan,  
Acting Regional Administrator,  
Region IX.

[FR Doc. 2021-09215 Filed: 5/7/2021 8:45 am; Publication Date: 5/10/2021]